

FINAL DRAFT/PROPOSED CAAPP PERMIT
3M Specialty Materials Division
I.D. No.: 161807AAA
Application No.: 96030133
July 18, 2003

217/782-2113

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT¹

PERMITTEE

3M
Attn: Sumitra Ness
3M Center
Building 42-2E-27
St. Paul, Minnesota 55133-3331

<u>Application No.:</u> 96030133	<u>I.D. No.:</u> 161807AAA
<u>Applicant's Designation:</u>	<u>Date Received:</u> March 7, 1996
<u>Operation of:</u> Specialty Materials Division	
<u>Date Issued:</u> TO BE DETERMINED	<u>Expiration Date</u> ² : DATE
<u>Source Location:</u> 22614 Route 84 North, Cordova, Rock Island County	
<u>Responsible Official:</u> David P. Boaz, Plant Manager	

This permit is hereby granted to the above-designated Permittee to OPERATE a Specialty Materials production plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Dan Punzak at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:DGP:psj

cc: Illinois EPA, FOS, Region 2
USEPA

¹ This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit.

² Except as provided in condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

3M Cordova - Specialty Materials Manufacturing Division
22614 Route 84 North
Cordova, Illinois 61242
309/654-2291

I.D. No.: 161807AAF
Standard Industrial Classification: 2899, Chemical Preparations
not elsewhere classified

1.2 Owner/Parent Company

3M
3M Center
ET&S, Building 42-2E-27, PO Box 33331
St. Paul, Minnesota 55133-3331

1.3 Operator

3M Cordova - Specialty Materials Manufacturing Division
22614 Route 84 North
Cordova, Illinois 61242

David Schulze
309/654-2291 Ext. 1233

1.4 General Source Description

The 3M Cordova Specialty Materials Manufacturing Division (3M) manufacturing facility produces numerous chemical products. These products are adhesives, resins, fluorochemicals, and other specialty chemicals. Some products are only made once or twice per year in small quantities while others are produced almost year around in large quantities. Production is by batch operations and semi-continuous operations. Almost no equipment is dedicated to making a specific product. Most every production unit is called upon to make a wide variety of products. A basic production unit, referred to as a burden center, consists of a key piece of equipment such as a chemical reactor and various ancillary parts. These ancillary pieces of equipment are stationary but may be reconfigured in a variety of ways, i.e. using flexible hoses, and used as part of another burden center. Ancillary pieces of equipment may include one or more of the following types of equipment: an overhead condenser, receiver, weigh tank, or a vacuum system.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ACMA	Alternative Compliance Market Account
ATUs	Allotment Trading Units
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
ERMS	Emission Reduction Market System
°F	degrees Fahrenheit
ft ³	cubic foot
gal	gallon
gm	gram
gr/scf	Grain per standard cubic foot
HAP	Hazardous Air Pollutant
Hp	horse power
hr	hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
°K	degrees Kelvin
Kg	kilogram
KW	Kilowatts
lb	Pound
MACT	Maximum Available Control Technology
mmcf	Million cubic feet
MG	Megagram
M	Meter
mmBtu	Million British thermal units
mo	month
MW	Megawatts
NONVOM	See Definition in Condition 5.2.8
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
OM	Organic Material
PM	Particulate Matter

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PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	Parts per million
PSD	Prevention of Significant Deterioration
psia	pounds per square inch absolute
REAP	Regulatory Environmental Audit Program
RMP	Risk Management Plan
scf	standard cubic foot
SO ₂	Sulfur Dioxide
SOCMI	Synthetic Organic Chemical Manufacturing Industry
T	Ton
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
wt.	weight
yr	year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

- 3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a) (1) and 201.211, as follows:

1 Cell Pack Welding Unit
Building 20 and 30 Torit Dust Collectors^a
Building 3 Marion Mixer Baghouse and Dust Collector^a
Building 3 Drumming Dust Collector^a

^a These units are equipped with control equipment but the emissions in the absence of the control equipment are less than 1 lb/hr

- 3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a) (2) or (a) (3), as follows:

3 Maintenance Welding Units
1 Rotary Vacuum Dryer in Building 3
1 Cumberland grinder with dust collector
1 Packaging Station

- 3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a) (4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a) (4)].

14 Heating and ventilating units (<2.5 mmBtu/hr Natural gas firing)

Equipment used for filling drums, pails, or other packaging containers, excluding aerosol cans, with soaps, detergents, surfactants, lubricating oils, waxes, vegetable oils, greases, animal fats, glycerin, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(8)].

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

- 3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

- 3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.
- 3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Date Constructed	Emission Control Equipment
Building 2			
Small Packaging	Tanks and Columns for Purification	May, 2002	None
2-4 System BC-4T	TDX Pouch Process	July, 1997	None
Building 3			
3-1 System BC-3A	3-1-A-1 Reactor	February, 1970	None
3-1 System BC-2A	3-1-A-4 Receiver	November, 1969	None
3-2 System BC-3B	3-2-A-1 Reactor	December, 1970	None
3-2 System BC-2B	3-2-A-2 Reactor	December, 1970	None
3-3 System BC-3C	3-3-A-1 Reactor	June, 1973	None
3-4 System BC-3D	3-4-A-1 Reactor	September, 1969	None
3-4 System	3-4-A-2 Receiver	September, 1969	None
3-5 System BC-3E	3-5-A-3 Reactor	October, 1973	None
3-5 System BC-3E	3-5-E-1 Conical Dryer	July, 1970	None
3-6 System BC-3F	3-6-A-1 Reactor	January, 1993	None
3-6 System BC-2F	3-6-A-2 Receiver	January, 1970	None
3-7 System BC-3G	3-7-A-1 Reactor	January, 1985	None
3-7 System BC-2G	3-7-A-2 Reactor	January, 1985	None
3-8 System BC-3H	3-8-A-1 Reactor	August, 1974	None
3-9 System BC-3J	3-9-A-1 Reactor	October, 1974	None
3-9 System BC-2J	3-9-A-2 Reactor	September, 1974	None
3-10 System BC-3K	3-10-A-1 Reactor	December, 1974	None
3-11 System BC-3L	3-11-A-1 Reactor	January, 1985	None
3-11 System BC-2L	3-11-A-2 Receiver	December, 1973	None

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Emission Unit	Description	Date Constructed	Emission Control Equipment
3-12 System BC-3M	3-12-A-1 Reactor	April, 1977	None
3-12 System BC-2M	3-12-A-2 Receiver	December, 1973	None
3-13 System BC-3N	3-13-A-1 Reactor	April, 1975	None
3-13 System BC-2N	3-13-A-2 Reactor	May, 1975	None
3-14 System BC-3P	3-14-A-1 Reactor	August, 1987	None
3-14 System BC-2P	3-14-A-2 Reactor	December, 1987	None
3-21 System BC-4S and 1R	3-21-A-2 Pony Tub 3-21-A-2 Cowles Tank 3-21-E-1 Roll Mill 3-21-E-2 No. Pony Mixer 3-21-E-3 So. Pony Mixer 3-21-E-8 Homo Mixer 3-21-E-9 Mixer 3-21-E-12 Drum Tumbler	June, 1970 Except: E-8 = N/A E-12 = May, 1992	Dust Collectors Associated with Some Units Labeled Insignificant Under Section 3.1
3-22 System BC-4T, 7T and 7S	3-22-E-9 Marion Mixer 3-22E-18 Grinder	E-9 = December, 1979 E-18 - N/A	Dust Collectors 3-22-E-10 3-22-E-14 3-22-E-15
3-25 System BC-75	3-25-E-1 Double Drum Dryer	April, 1970	None
3-26 System BC-43	3-26-E-1 Double Drum Dryer	March, 1974	None
3-27 System BC-50	3-27-E-1 Double Drum Dryer	April, 1987	None
3-25, 3-26, 3-27 System	Common Disperser Tanks 3-25-A-3, 3-25-A-4 3-26-A-3, 3-26-A-4 3-27-A-3, 3-27-A-4	25-A-3 and 4 = April, 1970 26-A-3 and 4 = March, 1974 27-A-3 and 4 = April, 1987	None
3-32 System BC-6B	3-32-A-1 Reactor	June, 1989	None
3-32 System BC-5B	3-32-A-2 Receiver	October, 1977	None
3-32 System BC-4B	3-32-E-4 Flaker	October, 1972	Dust Collector 3-32-E-9
3-32 System BC-6B	3-32-E-7 Flaker	August, 1999	Dust Collector 3-32-E-7
3-34 System BC-1D	3-34-E-1 Dryer	N/A	None

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Emission Unit	Description	Date Constructed	Emission Control Equipment
3-40 System BC-6K	3-40-A-1 Reactor	January, 1989	None
3-40 System BC-5K	3-40-A-2 Receiver	April, 1970	None
3-43-C-1 System BC-5N	Eimco Filter	N/A	None
3-57 System BC-3M	3-57-A-1 Thru 4 Tanks	1997	None
3-62 System BC-4G	3-62-C-1 S Press	December 1987	None
3-66 System BC-4F	3-66-A-1 Reactor	April, 1970	None
3-68 System BC-6H	3-68-A-1 Reactor	April, 1974	None
Building 4			
4-1 System BC-41	4-1-A-1 Reactor	September, 1970	None
4-1 System BC-42	4-1-A-2 Receiver	September, 1970	None
4-2 System BC-52	4-2-A-1 Reactor	September, 1970	Scrubber (NH ₃)
4-32 System BC-53	4-32-A-1 Reactor	September, 1970	None
Building 20 ^{a, b}			
20-01 System BC-01	Electrochemical Cells 20-1-A-1 Thru 6, 20-1-A-21, 20-1-A-22	November, 1975	Scrubber*
20-02 System BC-02	Electrochemical Cells 20-2-A-1 Thru 12	January, 1997 Except: A-3, 6, and 12 = October, 1998	Scrubber*
20-03 System BC-03	Electrochemical Cells 20-3-A-1 Thru 12	January, 1987 Except: A-3 = August, 2001	Scrubber*
20-04 System BC-04	Electrochemical Cells 20-4-A-1 Thru 3	June, 1992	Scrubber*
20-11 System BC-11	20-11-A-7 Distillation Column	January, 1992	Scrubber*
20-12 System BC-12	20-12-A-1 Distillation Column	January, 1992	Scrubber*
20-21 System BC-21	20-21-A-4 Silica Gel Column	February, 1999	None
20-22 System BC-22	20-22-D-1 Discotherm	January, 1990	Scrubber*

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Emission Unit	Description	Date Constructed	Emission Control Equipment
20-33 System BC-33	20-33-A-1, 2, 13 Distillation Columns	A-1 = May, 1995 A-2 = May, 1995 A-13 = July, 1996	Scrubber*
20-34 System BC-34	Dessicant Dryer Columns 20-34-A-1, 20-34-A2	November, 1998	None
20-41 System BC-41	20-41-A-1 Reactor	June, 1996	Scrubber*
20-50 System BC-51	20-50-A-1 Reactor	January, 1981	Scrubber*
20-60 System BC-61	20-60-A-1 Reactor	November, 1982	Scrubber*
20-66 System BC-66	20-66-A-11, 21, 41, 51 Distillation Columns	November, 1998	None
20-70 System BC-70	20-70-A-1 Reactor	January, 1997	Scrubber*
20-71 System BC-71	20-71-A-1 Reactor	January, 1997	Scrubber*
20-72 System BC-72	20-72-A-1 Columns	January, 1997	None
20-73 System BC-73	20-73-A-1 Tanks	March, 1997	Dust Collector 20-73-C-2 Listed as Insignificant in 3.1
20-90 System BC-90	20-90-A-1 and 11 Distillation Columns	February, 2002	None
20-93 System	20-93-A-1 Thru 6 Finishing Columns	June, 1997	None
20-95 System BC-95	20-95-A-1 Wash Columns	February, 1997	None
Building 20 Scrubbers	Building 20 Equipment Can be Served by Various Scrubbers.		20-31-C-2, 20-31-C-5, 20-2-C-5, 20-3-C-3, 20-3-C-10, 20-31-C-3, 20-33-C-7, 20-41-C-1, 20-50-D-9, 20-60-D-5, 20-70-C-1, 20-71-C-1, 20-73-C-1, 20-31-C-1
Building 23			
23-01 System BC-31	23-1-A-1 Reactor	September, 1988	None

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Emission Unit	Description	Date Constructed	Emission Control Equipment
23-02 System BC-91	23-2-B-3 Wiped Film Evaporator	April, 1999	None
23-03 System BC-33	23-3-A-1 Reactor	October, 1985	None
23-03 System BC-23	23-3-A-2 Receiver	October, 1985	None
23-04 System BC-89	23-4-C-1 Wiped Film Evaporator	August, 1995	
23-05 System BC-35	23-5-A-1 Reactor	June, 1986	
23-05 System BC-15	23-5-E-3 LUWA Evaporator	August, 1995	None
23-06 System BC-6A	23-6-A-1 Reactor	January, 1996	None
23-07 System BC-36	23-7-A-1 Reactor	April, 1991	None
23-16 System BC-6B	23-16-A-1 Distillation Columns	October, 1995	None
23-17 System BC-34	323-17-A-1 Reactor	July, 1999	None
23-31 System BC-38	23-31-A-1 Reactor	July, 1999	None
23-32 and 34 Systems	Weigh and Hold Tanks 23-32-A-3, 4, 5 23-34-A-3	32-A-3, 4, and 5 = July, 1999 34-A-3 = May, 2000	None
23-35 System BC-39	23-35-A-1 Reactor	February, 2000	None
23-37 System BC-36	23-37-A-1 Reactor	April, 1991	None
23-38 System BC-08	23-38-A-1 Wiped Film Evaporator	June, 1997	None
Building 30 ^{a, b}			
30-01 System BC-05	30-1-A-1 (-12) Twelve Cell System	March, 1998	Scrubbers*
30-02 System BC-06	30-02-A-1 (-12) Twelve Cell System	March, 1998	Scrubbers*
30-06 System BC-80	30-06-A-1 & 11, 13-19 Distillation Column and Silica Columns	August, 1999	None
30-07 System BC-40	30-07-A-1 and 2, 11 and 12 Columns	May, 1998	Scrubber*
30-08 System BC-81	30-08-A-1 Distillation System	November, 1999	Scrubbers*

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Emission Unit	Description	Date Constructed	Emission Control Equipment
30-09 System	30-9-A-1, 2 and 3 Tanks	May, 1998	Scrubber* Dust Collector 30-9-C-2 Listed as Insignificant in 3.1
30-20 System	30-20-A-1 Receiver	April, 1998	None
30-14 System	30-14-A-1 Thru 3 Columns	September, 2002	None
30-37 System	Weigh Tank 30-37-A-1	November, 1998	Scrubber*
30-61 System BC-23	30-61-A-3 Discotherm Evaporator	July, 1998	Scrubber*
30-67 System BC-45	30-67-A-1 and 11 Distillation Columns	November, 1998	Scrubber*
Building 30 Scrubbers	Building 30 Equipment Can be Served by Various Scrubbers.		30-1-C-4, 30-1-C-12, 30-2-C-4, 30-2-C-12, 30-09-C-4, 30-08-C-1, 30-61-C-1
Building 68			
Building 68 System	68-1-C-1 Repackaging Unit with Dust Collector	April, 2000	Dust Collector 68-1-C-1
Other			
BIS A	Bisphenol A Storage and Transfer/Silo	November, 1992	Dust Collector 1-1-C-7, 3-98-C-10, 3-98-C-11, 3-98-C-6, 3-98-C-9
Storage Tanks	Chemical or Gasoline Storage Tanks	See Attachment 2	None
Boiler #1	Gas-Fired Boiler with #6 Oil Standby Fuel, Firing Rate: 50 mmBtu/hr	1970	None
Boiler #2	Gas-Fired Boiler with #6 Oil Standby Fuel, Firing Rate: 50 mmBtu/hr	1970	None
Boiler #3	Gas-Fired Boiler with #6 Oil Standby Fuel, Firing Rate: 75 mmBtu/hr	1986	None
Reactor Burner	3.8 mmBtu/hr	1980	None

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Emission Unit	Description	Date Constructed	Emission Control Equipment
Loading Operations	Various Units: 10 Loading Racks, 6 Fixed Roof Storage Tanks, Loading Directly From Process Vessels	Pre-1972	None
	Fugitive VOM Emission Source	----	

- ^a All major vents in Buildings 20 and 30 can discharge to a voluntary thermal oxidizer or scrubbers.
- ^b Buildings 20 and 30 have revisions to original construction permits issued in 2003 and therefore original construction dates are not relevant.

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

- 5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of VOM, SO₂, NO_x and HAP emissions.
- 5.1.2 For purposes of the CAAPP, 3M Specialty Materials Manufacturing Division, is considered a single source with 3M Audio Video Products Division, I.D. No.161807AAF, located at 22614 Route 84 North, Cordova. 3M Specialty Materials Division is a major source of NO_x, SO₂, VOM and HAP emissions. The source has elected to obtain separate CAAPP permits for each of these two divisions operating at this location.

5.2 Applicable Regulations

- 5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.
- 5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:
- a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.
 - b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.
 - c. No person shall cause any single or multiple compartment effluent water separator which receives

more of organic material from any equipment processing, refining, treating, storing or handling organic material unless such effluent water separator is equipped with air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material emitted to the atmosphere. Exception: If no odor nuisance exists the limitations of this subparagraph shall not apply if the vapor pressure of the organic material is below 17.24 kPa (2.5 psia) at 294.3°K (70°F) [35 IAC 215.141(a)].

- d. No person shall cause or allow the discharge of more than 32.8 ml (2 cu in) of volatile organic liquid with vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) into the atmosphere from any pump or compressor in any 15 minute period at standard conditions [35 IAC 215.142].

5.2.3 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.4 Risk Management Plan

- a. This stationary source, as define in 40 CFR Section 68.3, is subject to 40 CFR Part 68, the Accidental Release Prevention regulations [40 CFR 68.215(a)(1)].

- b. The owner or operator of a stationary source³ shall revise and update the RMP submitted, as specified in 40 CFR 68.190.

5.2.5 Future Regulations

- a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.
- b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.6 Episode Action Plan

- a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:
 - i. Illinois EPA, Compliance Section; and
 - ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or
 - iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.2.7 CAM Plan

Upon application for renewal of the initial CAAPP permit, the source must submit a Compliance Assurance Monitoring (CAM) for each affected pollutant-specific emissions unit that is subject to 40 CFR Part 64, CAM for Major Stationary Sources. The source must also submit a CAM plan in the event of a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit, which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.2.8 Definition

- a. For the purpose of this permit, other organic material (NONVOM) is organic material as defined in 35 IAC 211.4250 that does not qualify as volatile organic material, hazardous air pollutants, ozone depleting substances or photochemically reactive organic material.
- b. For purposes of this permit, fluorides means fluorides as measured by USEPA Method 13 (40 CFR 60, Appendix A), which would include organic compounds that are called "acid fluorides".

5.3 Non-Applicability of Regulations of Concern

This permit is issued based on the source not being subject to 35 IAC Part 218 or 219, because the source is not located in the Chicago or Metro-East Metropolitan areas.

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	1,017.10
Sulfur Dioxide (SO ₂)	753.07
Particulate Matter (PM)	94.26
Nitrogen Oxides (NO _x)	320.66
HAP, not included in VOM or PM	53.19
Total	2,228.28

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.5 Records for Operating Scenarios

N/A

5.6.6 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

Opacity or emissions exceeding the allowable of Conditions 5.2.2 or 5.5.1.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

- a. For the purpose of estimating VOM emissions from the tanks, the current version of the USEPA TANKS program is acceptable.
- b. For the purpose of estimating fugitive VOM emissions from leaking components at the source, the emission factors found in "1995 Protocol for Equipment Leak Emission Estimates" published by USEPA in November 1995 by the Emission Standards Division of DAQPS, "EPA-453-R-95-017" shall be used. Summaries of this lengthy document are also acceptable.
- c. For the purpose of estimating HAP emissions from equipment at the source, the vapor weight percent (based on a 1992 USEPA survey) of each HAP for each organic liquid times the VOM emissions contributed by that organic liquid is acceptable.

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6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Chemical Manufacturing Process Units

7.1.1 Description

3M Cordova Specialty Materials Division (3M) manufacturing facility produces numerous chemical products. These products are adhesives, resins, fluorochemicals, and other specialty chemicals. Some products are only made once or twice per year in small quantities while others are produced almost year around in large quantities. Production is by batch operations.

Almost no equipment is dedicated to making a specific product. Most every production unit is called upon to make a wide variety of products. 3M refers to these production units as burden centers. A basic burden center consists of a key piece of equipment such as a chemical reactor and various ancillary parts, which may include one or more of the following: an overhead condenser, receiver, weigh tank, a vacuum system, and/or pumps.

Within this manufacturing facility, each building contains multiple, flexible burden centers, which can be used to manufacture a variety of products. Each burden center has several different pieces of ancillary equipment. The equipment is modular, so it can be used in different ways, at different operating temperatures, and different pressures. It is part of the normal operations to hook up different pieces of equipment, and change equipment configurations, all during the course of making one product. Sometimes equipment is reconfigured across burden centers. For example, burden center #1 could consist of a reactor, receiver, and condenser. That same reactor can be used with a distillation column and is then considered burden center #2. For some batch products, this equipment reconfiguration may take place several times a day.

In the following list of equipment, only the key piece of equipment is listed, primarily reactors, columns and tanks for liquid materials, and driers, evaporators and others for converting liquid to solids by evaporation or to handle the solid (powder or flake) material afterward. The ancillary pieces of equipment are not named but are covered by this permit. Ancillary pieces of equipment are listed in the permit application.

Condensers used with process equipment are not considered control equipment. The condensers used with production units are process condensers are integral to the process, are used to recover product, and they are not considered control devices. The equipment called electrochemical cells is for electrochemical production of fluorinated products.

Some distillation columns are connected directly to a reactor while others are separate, that is they have a reboiler to supply heat.

The above description is for descriptive purposes only and is not enforceable.

7.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Building 2		
Small Packaging	Tanks and Columns for Purification	None
2-4 System (BC-4T)	TDX Pouch Process	None
Building 3		
3-1 System BC-3A	3-1-A-1 Reactor	None
3-1 System BC-2A	3-1-A-4 Receiver	None
3-2 System BC-3B	3-2-A-1 Reactor	None
3-2 System BC-2B	3-2-A-2 Reactor	None
3-3 System BC-3C	3-3-A-1 Reactor	None
3-4 System BC-3D	3-4-A-1 Reactor	None
3-4 System	3-4-A-2 Receiver	None
3-5 System BC-3E	3-5-A-3 Reactor	None
3-5 System BC-3E	3-5-E-1 Conical Dryer	None
3-6 System BC-3F	3-6-A-1 Reactor	None
3-6 System BC-2F	3-6-A-2 Receiver	None
3-7 System BC-3G	3-7-A-1 Reactor	None

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Emission Unit	Description	Emission Control Equipment
3-7 System BC-2G	3-7-A-2 Reactor	None
3-8 System BC-3H	3-8-A-1 Reactor	None
3-9 System BC-3J	3-9-A-1 Reactor	None
3-9 System BC-2J	3-9-A-2 Reactor	None
3-10 System BC-3K	3-10-A-1 Reactor	None
3-11 System BC-3L	3-11-A-1 Reactor	None
3-11 System BC-2L	3-11-A-2 Receiver	None
3-12 System BC-3M	3-12-A-1 Reactor	None
3-12 System BC-2M	3-12-A-2 Receiver	None
3-13 System BC-3N	3-13-A-1 Reactor	None
3-13 System BC-2N	3-13-A-2 Reactor	None
3-14 System BC-3P	3-14-A-1 Reactor	None
3-14 System BC-2P	3-14-A-2 Reactor	None
3-21 System BC-4S and 1R	3-21-A-2 Pony Tub 3-21-A-2 Cowles Tank 3-21-E-1 Roll Mill 3-21-E-2 No. Pony Mixer 3-21-E-3 So. Pony Mixer 3-21-E-8 Homo Mixer 3-21-E-9 Mixer 3-21-E-12 Drum Tumbler	Dust Collectors associated with some units labeled insignificant under Section 3.1
3-22 System BC-4T, 7T and 7S	3-22-E-9 Marion Mixer 3-22E-18 Grinder	Dust Collectors 3-22-E-10 3-22-E-14 3-22-E-15
3-25 System BC-75	3-25-E-1 Double Drum Dryer	None
3-26 System BC-43	3-26-E-1 Double Drum Dryer	None
3-27 System BC-50	3-27-E-1 Double Drum Dryer	None

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Emission Unit	Description	Emission Control Equipment
3-25, 3-26, 3-27 System	Common Disperser Tanks 3-25-A-3, 3-25-A-4 3-26-A-3, 3-26-A-4 3-27-A-3, 3-27-A-4	None
3-32 System BC-6B	3-32-A-1 Reactor	None
3-32 System BC-5B	3-32-A-2 Receiver	None
3-32 System BC-4B	3-32-E-4 Flaker	Dust Collector 3-32-E-9
3-32 System BC-6B	3-32-E-7 Flaker	Dust Collector 3-32-E-7
3-34 System BC-1D	3-34-E-1 Dryer	None
3-40 System BC-6K	3-40-A-1 Reactor	None
3-40 System BC-5K	3-40-A-2 Receiver	None
3-43-C-1 System BC-5N	Eimco Filter	None
3-57 System BC-3M	3-57-A-1 thru 4 Tanks	None
3-62 System BC-4G	3-62-C-1 S Press	None
3-66 System BC-4F	3-66-A-1 Reactor	None
3-68 System BC-6H	3-68-A-1 Reactor	None
Building 4		
4-1 System BC-41	4-1-A-1 Reactor	None
4-1 System BC-42	4-1-A-2 Receiver	None
4-2 System BC-52	4-2-A-1 Reactor	Scrubber (NH ₃)
4-32 System BC-53	4-32-A-1 Reactor	None
Building 20 ^a		
20-01 System BC-01	Electrochemical Cells 20-1-A-1 thru 6, 20-1-A-21, 20-1-A-22	Scrubber*
20-02 System BC-02	Electrochemical Cells 20-2-A-1 thru 12	Scrubber*
20-03 System BC-03	Electrochemical Cells 20-3-A-1 thru 12	Scrubber*

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Emission Unit	Description	Emission Control Equipment
20-04 System BC-04	Electrochemical Cells 20-4-A-1 thru 3	Scrubber*
20-11 System BC-11	20-11-A-7 Distillation Column	Scrubber*
20-12 System BC-12	20-12-A-1 Distillation Column	Scrubber*
20-21 System BC-21	20-21-A-4 Silica Gel Column	None
20-22 System BC-22	20-22-D-1 Discotherm	Scrubber*
20-33 System BC-33	20-33-A-1, 2, 13 Distillation Columns	Scrubber*
20-34 System BC-34	Dessicant Dryer Columns 20-34-A-1, 20-34-A2	None
20-41 System BC-41	20-41-A-1 Reactor	Scrubber*
20-50 System BC-51	20-50-A-1 Reactor	Scrubber*
20-60 System BC-61	20-60-A-1 Reactor	Scrubber*
20-66 System BC-66	20-66-A-11, 21, 41, 51 Distillation Columns	None
20-70 System BC-70	20-70-A-1 Reactor	Scrubber*
20-71 System BC-71	20-71-A-1 Reactor	Scrubber*
20-72 System BC-72	20-72-A-1 Columns	None
20-73 System BC-73	20-73-A-1 Tanks	Dust Collector 20-73-C-2 Listed as Insignificant in 3.1
20-90 System BC-90	20-90-A-1&11 Distillation Columns	None
20-93 System	20-93-A-1 thru 6 Finishing Columns	None
20-95 System BC-95	20-95-A-1 Wash Columns	None
Building 20 Scrubbers	Building 20 equipment can be served by various scrubbers.	20-31-C-2, 20-31-C-5 20-2-C-5, 20-3-C-3, 20-3-C-10, 20-31-C-3 20-33-C-7, 20-41-C-1 20-50-D-9, 20-60-D-5 20-70-C-1, 20-71-C-1 20-73-C-1, 20-31-C-1

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Emission Unit	Description	Emission Control ^a Equipment
Building 23		
23-01 System BC-31	23-1-A-1 Reactor	None
23-02 System BC-91	23-2-B-3 Wiped Film Evaporator	None
23-03 System BC-33	23-3-A-1 Reactor	None
23-03 System BC-23	23-3-A-2 Receiver	None
23-04 System BC-89	23-4-C-1 Wiped Film Evaporator	
23-05 System BC-35	23-5-A-1 Reactor	
23-05 System BC-15	23-5-E-3 LUWA Evaporator	None
23-06 System BC-6A	23-6-A-1 Reactor	None
23-07 System BC-36	23-7-A-1 Reactor	None
23-16 System BC-6B	23-16-A-1 Distillation Columns	None
23-17 System BC-34	323-17-A-1 Reactor	None
23-31 System BC-38	23-31-A-1 Reactor	None
23-32 and 34 Systems	Weigh and Hold Tanks 23-32-A-3, 4, 5 23-34-A-3	None
23-35 System BC-39	23-35-A-1 Reactor	None
23-37 System BC-36	23-37-A-1 Reactor	None
23-38 System BC-08	23-38-A-1 Wiped Film Evaporator	None
Building 30 ^a		
30-01 System BC-05	30-1-A-1 (-12) Twelve Cell System	Scrubbers*
30-02 System BC-06	30-02-A-1 (-12) Twelve Cell System	Scrubbers*
30-06 System BC-80	30-06-A-1 & 11, 13-19 Distillation Column and Silica Columns	None
30-07 System BC-40	30-07-A-1 and 2, 11 and 12 Columns	Scrubber*

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Emission Unit	Description	Emission Control ^a Equipment
30-08 System BC-81	30-08-A-1 Distillation System	Scrubbers*
30-09 System	30-9-A-1, 2 and 3 Tanks	Scrubber* Dust Collector 30-9-C-2 Listed as Insignificant in 3.1
30-20 System	30-20-A-1 Receiver	None
30-14 System	30-14-A-1 thru 3 Columns	None
30-37 System	Weigh Tank 30-37-A-1	Scrubber*
30-61 System BC-23	30-61-A-3 Discotherm Evaporator	Scrubber*
30-67 System BC-45	30-67-A-1 and 11 Distillation Columns	Scrubber*
Building 30 Scrubbers	Building 30 equipment can be served by various scrubbers.	30-1-C-4, 30-1-C-12 30-2-C-4, 30-2-C-12 30-09-C-4, 30-08-C-1 30-61-C-1
Building 68		
Building 68 System	68-1-C-1 Repackaging Unit with Dust Collector	Dust Collector 68-1-C-1
Other		
BIS A	Bisphenol A Storage and Transfer/Silo	Dust Collector 1-1-C-7, 3-98-C-10 3-98-C-11, 3-98-C-6 3-98-C-9

^a All major vents in Buildings 20 and 30 can discharge to a voluntary thermal oxidizer or scrubbers. This thermal oxidizer is being constructed and/or undergoing shakedown and testing under the terms of Construction Permit 02010008 and is not included in this permit.

* Equipment and scrubber pairings are flexible. Scrubbers listed are process scrubbers. Industrial hygiene and safety scrubbers are not operated as process scrubbers.

The ancillary pieces of equipment are not named but are covered by this permit. Ancillary pieces of equipment are listed in the permit application. The Permittee is not required to notify the Illinois EPA of additional ancillary pieces of equipment present at the source until the renewal application for this permit is submitted.

7.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected chemical manufacturing process units" for the purpose of these unit-specific conditions, are the emission units used to manufacture specialty chemicals, including those units listed in Condition 7.1.2.
- b. The affected chemical manufacturing process units are subject to 35 IAC 212, Subpart L: Particulate Matter from Process Emission Sources, which provides that:
 - i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See also Attachment 1) [35 IAC 212.321(a)]; and
 - ii. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See also Attachment 1) [35 IAC 212.322(a)]; and
- c. The affected chemical manufacturing process units are subject to 35 IAC 215.301, which provides that:

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 215.302 and the following exception: If no odor nuisance exists the limitation of 35 IAC 215 Subpart G shall apply only to photochemically reactive material as defined in 35 IAC 211.4690 [35 IAC 215.301]. The provision of 215.302 allows

emissions of organic material to exceed 8 lb/hr if they are controlled by a vapor recovery system (i.e. a control condenser), which removes 85% of the uncontrolled organic material that would otherwise be emitted to the atmosphere. The rule provides for possible use of afterburners or scrubbers, and therefore Permittee's voluntary thermal oxidizer may be used to meet the requirements of this rule.

- d. Various equipment to be described may produce materials that are subject to certain NESHAP requirements.

- i. 40 CFR 63 Subpart GGG, Pharmaceuticals Production

The 2317 and 301 system, when used to produce a pharmaceutical or precursor of a pharmaceutical product is subject to 40 CFR 63.1254. The Permittee shall comply with the process vent standard of 40 CFR 63.1254 by complying with the process-based annual mass limit of Section 63.1254(a)(2)(i) and (ii), that is actual HAP emissions from the sum of all process vents within a process not exceeding 1982.4 pounds in any 365-day period and the sum of all process vents for all combined process shall not exceed 3965 lb in any 365 day period.

The heat exchange system shall meet the requirements of 40 CFR 63.1252(c), which includes meeting the current good management practice of 21 CFR 211.

- ii. 40 CFR 63 Subpart 000, Amino/Phenotic Resins

The 307 reactor system when used to produce an amino or phenolic resin is subject to 40 CFR 63.1400 to 63.1419. The specific reactor batch process vent requirement that the Permittee complies with is Section 63.1406(a)(2)(iii), that is, reduce organic HAP emissions from the collection of all reactor batch process vents within the affected source, as a whole, to 0.0567 kilogram of organic HAP per megagram of product (0.0567 lb organic HAP/1000 lb product) or less for solvent-based resin

production, or to 0.0057 kilogram of organic HAP per megagram of product (0.0057 lb/1000 lb product) or less for non-solvent-based resin production.

For equipment leaks, the 307 reactor system shall follow the provisions in 40 CFR 63.1036 (Subpart UU) which allows use of an alternate compliance method involving pressure testing of batch equipment.

- iii. 40 CFR 63 Subpart MMM, Pesticide Active Ingredient Production. This rule has a compliance date of December 23, 2003.

Four reactor systems, Nos. 310, 311, 313, and 343, are subject to this rule when producing a pesticide active ingredient. The Permittee has chosen to comply by maintaining uncontrolled organic HAP emissions under 0.15 megagram/yr (330 lb/yr) from the sum of all process vents within a process. [40 CFR 63.1362(b)(2)(i)]

For equipment leaks, the 310, 311, 313, and 343 reactor systems, when making a pesticide active ingredient, shall follow the provisions in 40 CFR 63.1363 which allows use of an alternate compliance method involving pressure testing of batch equipment.

7.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected chemical manufacturing process units not being subject to the New Source Performance Standards (NSPS) for the Synthetic Organic Chemical Manufacturing Industry, 40 CFR Part 60, Subparts VV, NNN and RRR (equipment leaks, distillation operations and reactors), because the affected chemical manufacturing process units do not produce any of the affected chemicals listed in these regulations.
- b. This permit is issued based on the affected chemical manufacturing process units not being subject to the New Source Performance Standards (NSPS) for the Polymer Manufacturing Industry, 40 CFR Part 60, Subpart DDD, because the affected chemical

manufacturing process units do not produce any of the affected polymers listed in this regulation.

- c. This permit is issued based on the affected chemical manufacturing process units not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for the Synthetic Organic Chemical Manufacturing Industry, 40 CFR Part 63, Subparts F through H, because the affected chemical manufacturing process units do not produce any of the affected chemicals listed in these regulations.
- d. This permit is issued based on the affected chemical manufacturing process units not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Polymers and Resins, 40 CFR Part 63, Subparts U and JJJ, because the affected chemical manufacturing process units do not produce any of the affected polymers listed in these regulations.
- e. This permit is issued based on the affected chemical manufacturing processes not being subject to 35 IAC 215 Subpart Q, Leaks from SOCOMI equipment, because the chemical processes do not manufacture any of the chemical listed in Appendix D of Part 215.
- f. For processes that are subject to the NESHAP rules specified in Condition 7.1.3(d), i.e., 40 CFR 63 Subpart GGG, MMM, and OOO, some standards within those general rules do not apply for the following reasons:
 - i. There are no storage vessels that are part of the Pharmaceutical Manufacturing Process Unit or Pesticide Active Ingredient Manufacturing Unit. Therefore, the provisions of 40 CFR 63.1253 or 63.1362(c) do not apply.
 - ii. For the Amino Phenolic Process Unit the storage vessel requirements of 40 CFR 63.1404 do not apply because the provisions only apply to new affected sources and the Permittee's unit is an existing source.
 - iii. The wastewater provisions of 40 CFR 63.1256 (Subpart GGG) do not apply because the process unit does not generate wastewater. There are no wastewater requirements in Subpart OOO and

the pesticide active ingredient unit does not generate wastewater with Table 9 HAPs so no wastewater provisions apply.

- iv. The equipment leaks requirements of 40 CFR 63.1255 (Subpart GGG) do not apply because in reactor system 2317 streams all contain less than 5% HAP and pursuant to the definition in 40 CFR 63.1251 the equipment is not considered to be in organic HAP service.

7.1.5 Control Requirements

- a. The Permittee shall follow good operating practices for the condensers, dust collectors, and scrubbers listed in Condition 7.1.2 under "emission control equipment," including periodic inspection, routine maintenance and prompt repair of defects.

- b. Operating Conditions for 20-01 and 20-03 Cell Systems

- i. Emissions of VOM^a from each electrochemical cell shall be controlled by a condenser or series of condensers, operating to achieve a final gas outlet temperature of - 40°F.

^a The majority of the emissions for which this BACT condition was originally imposed in 1987 for the 20-03 system, have since been federally exempted as VOCs in 40 CFR 51.100, but continue to be regulated as NONVOM in the State of Illinois. The condenser(s) are not classified as control equipment since they recover product.

- ii. Emissions of fluorides^b from electrochemical cells shall be controlled by a combination of:

- A. A condenser(s), operating to achieve a gas outlet temperature of - 40°F, followed by

- B. A scrubber(s), operating to achieve at least 97% control for acid gases.

^b The condensers are designed to remove product, while the scrubber primarily removes fluoride, e.g., HF.

c. Operating Conditions for 30-01 and 30-02 Cell Systems
 and 308 and 3010 Alkylation Systems

- i. Emissions of fluorides from electrochemical cells shall be controlled by a scrubber system consisting of two scrubbers in series.
- ii. The scrubber system shall be operated to achieve at least 90% control for hydrogen fluoride, on an hourly-average, based on emission testing in accordance with Condition 7.1.7 and proper equipment operation as determined from the monitoring and recordkeeping required by Conditions 7.1.8 and 7.1.9.

Condition 7.1.5(c) represents the application of the Best Available Control Technology (BACT) for fluorides as required by Section 165 of the Clean Air Act.

7.1.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected chemical manufacturing process units are subject to the following:

- a. Emissions of VOM from various chemical processing equipment shall not exceed the following limits:

<u>System or Equipment Name</u>	<u>VOM Emissions</u> <u>(Ton/Mo) (Ton/Yr)</u>		<u>State</u> <u>Permit</u> <u>Number</u>
System 4-2, When Making Silicon Urea LAB	0.6	5.6	74020082
System 3-11, When Making Silicon Urea LAB	0.6	5.6	74020082
System 3-40, When Making Silicon Urea LAB	0.6	5.6	74020082
System 3-14, When Making Phthalazine	0.2	1.5	74020082
3-32 Flaker System (Existing and New Line Combined)	2.8	10.0	81090032

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<u>System or Equipment Name</u>	<u>VOM Emissions</u> (Ton/Mo) (Ton/Yr)		<u>State</u> <u>Permit</u> <u>Number</u>
System 3-27 Dryer and Disperser	3.5	31.0	83060002
System 3-62	0.2	1.0	88010040
4-01 Reactor System Emission Limitations During Production of OCAMP DTO Were Discontinued Jan 18, 1991 in a Letter From IEPA to 3M			
3-14 Reactor System Emission Limitations During Production of OCAMP DTO Were Discontinued Jan 18, 1991 in a LETTER FROM IEPA to 3M			
20-01 Cell System	8 lb/hr*	47	88050033
20-02 Cell System	8 lb/hr*	39	80120023
20-03 Cell System	8 lb/hr*	39	87070077
20-04 Cell System	8 lb/hr*	32.5	90020017
Downstream System (Including 20-11, 20-12, 20-21, 20-22, 20-31, 20-33, 20-34, 20-41, 20-50, and 20-60, 20-90, 20-93, 20-95 Systems)	8 lb/hr*	47	81070016
20-66 Downstream System	8 lb/hr*	35	97090093
20-70 Downstream System (Including 20-70, 20-71, 20-72, and 20-73)	8 lb/hr*	35	95110110
TD4 Process	3.0	26.7	96090056

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<u>System or Equipment Name</u>	<u>VOM Emissions</u>		<u>State Permit Number</u>
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	
Building 23 Systems		135.4	85020011
(including 23-01, 23-02,		Building	85020063
23-03, 23-04, 23-05, 23-06,		Cap	85090015
23-07, 23-16, 23-17, 23-31,			89030075
23-35, 23-37, and 23-38 as		No	90100049
Described in 7.1.2)		Individual	94020091
		Unit	94110038
		Greater	96010105
		Than 35	96020020
Building 30 Systems	8 lb/hr*	35	96040074
(Including 30-01, 30-02,			
30-06, 30-07, 30-08, 30-09,			
30-14, 30-37, 30-61, and			
30-67 Systems) and 308 and			
3010 Alkylation Systems			

* Hourly VOM rates are only applicable to VOM that meets the definition of photochemically reactive in 35 IAC 211.4690 and not controlled by 85%. See Condition 7.1.3(c).

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

In addition, Systems 30-01 and 30-02 will be limited to a combined total of 5600 hours of run time for the overall worst-case VOM emitting product.

System 20-66 is limited to a total of 4,320 hours of run time for the worst-case VOM emitting product.

System 20-01 is limited to a total of 7,800 hours of run time for the worst-case VOM emitting product.

System 20-03 is limited to a total of 8600 hours/yr for the worst-case VOM emitting product, provided that additional hours of operation are allowed if Permittee utilizes the voluntary thermal oxidizer as control during those additional hours of operation.

The above limitations contain revisions to previously issued permits listed above. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the hourly rates in the state permit have been replaced by monthly rates in some cases. The annual rate has not been changed except for possible rounding to the nearest tenth of a ton.
 [T1R}

- c. Emissions of pollutants other than VOM from various chemical processing equipment shall not exceed the following:

System or Equipment Name	Pollutant	Emissions		State Permit Number
		(T/Mo)	(T/Yr)	
Building 68 Resin Packaging System	PM		0.5	00030058
System 3-14, When Making Phthalazine	PM	0.2	1.8	74020082
System 3-14, When Making Phthalazine	Acetone	0.6	5.8	74020082
3-32 Flaker System	PM	0.5	4.34	81090032

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<u>System or Equipment Name</u>	<u>Pollutant</u>	<u>Emissions (T/Mo)</u>	<u>Emissions (T/Yr)</u>	<u>State Permit Number</u>
Emission Limitations During Production of OCAMP DTO Were Discontinued January 18, 1991 in a LETTER FROM IEPA to 3M				
20-01 Cell System	Fluoride	0.68 lb/hr	3.0	
20-01 Cell System	CO	5 lb/hr	22	80120023
20-01 Cell System	NONVOM	--	1000	88050033
20-02 Cell System	Fluoride	0.68 lb/hr	3.0	80120023
20-02 Cell System	CO	5 lb/hr	22	
20-03 Cell System	NONVOM	--	1000	87070077
20-03 Cell System	Fluoride	0.68 lb/hr	3.0	87070077
20-03 Cell System	CO	5	22	87070077
Downstream System (Including 20-11, 20-12, 20-21, 20-22, 20-31, 20-33, 20-34, 20-41, 20-50, and 20-60, 20-90, 20-93, 20-95 Systems)	Fluoride	N/A	0.44	81070016
	NONVOM	---	1000	81070016
20-66 Downstream System (Distillation Process)	NONVOM	---	1000	97090093
	Fluorides		0.44	

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<u>System or Equipment Name</u>	<u>Pollutant</u>	<u>Emissions</u> (T/Mo) (T/Yr)		<u>State Permit Number</u>
20-70 Downstream (Including 20-70, 20-71, 20-72, 20-73)	PM	0.38 lb/hr	1.1	
Building 23 Units (Including 23-01, 23-02, 23-03, 23-04, 23-05, 23-06, 23-07, 23-16, 23-17, 23-31, 23-35, 23-37, and 23-38 as described in 7.1.2)	Fluorides		2.9	85020011 85020063 85090015 89030075 90100049 94020091 94110038 96010105 96020020
4-2 Reactor System	Ammonia		0.5	96010104
Buildings 3 and 23 Cleaning Systems	Non-VOM	0.2	1.25	96020019
3-34 Dryer Scrubber Change Tank	PM	0.05	0.27	97070005
Building 23 Systems (Including 23-01, 23-03, 23-03, 23-04, 23-05, 23-06, 23-07, 23-16, 23-17, 23-31, 23-35, 23-37, 23-38)	PM		0.15	85020011 85020063 85090015 89030075 90100049 94020091 94110038 96010105 96020020 96040074
Building 30 Systems (Including 30-01, 30-02, 30-06, 30-07, 30-08, 30-09, 30-14, 30-37, 30-61, and 30-67 Systems) and 308 and 3010 Alkylation Systems	Fluoride	12.4 lb/hr	35	
	CO	17.0 lb/hr	74	
	PM	0.8 lb/hr	4	
	HF	0.68 lb/hr	2.7	
	NONVOM	---	774	

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12-month total) [T1].

In addition, System 20-03 is limited to 650 hrs/year of run time for the worst-case fluoride-emitting product; provided, however, that additional hours of operation are allowed if Permittee uses the voluntary thermal oxidizer as control during those additional hours of operation.

The above limitations contain revisions to previously issued permits listed above. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the hourly rates in the state permit have been replaced by monthly rates. The annual rate has not been changed except for possible rounding to the nearest tenth of a ton.

7.1.7 Testing Requirements

The Permittee shall complete the following testing requirements for the affected chemical manufacturing process units to demonstrate compliance with Conditions 5.5.3, 6.2, and 7.1.6, pursuant to Section 39.5(7)(c) of the Act:

- a. Upon request by the Illinois EPA or USEPA where it is necessary to demonstrate compliance, the Permittee shall, at his own expense, conduct tests in accordance with the applicable test methods and procedures

specified in 35 IAC 215.102, or in accordance with Method 320 (Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy). These tests shall be designed to quantify VOM or other emissions from the affected chemical manufacturing process units and associated activities under process conditions representative of maximum emissions.

- b. A test to demonstrate compliance with 35 IAC 215 Subpart K may involve any of the following:
 - i. Emission rate (lb/hr);
 - ii. Control device efficiency (%); or
 - iii. The chemical composition of the emissions to demonstrate if the material is photochemically reactive.

7.1.8 Monitoring Requirements

- a. The condenser(s) on the 20-02 and 20-03 cell systems shall be equipped with a device for measuring the final outlet gas temperature.
- b. The scrubber on the 20-02 and 20-03 cell systems shall be equipped with monitoring devices for the following:
 - i. Flow of process gas to the scrubber (on/off).
 - ii. Scrubbant flow rates or other appropriate parameters, e.g., pump motor amps or pressure in the water supply line to indicate the flow of scrubbant in the scrubber.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected chemical manufacturing process units to demonstrate compliance with Conditions 5.5.1, 7.1.5, and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of operation and emissions of each affected chemical manufacturing process unit, including the following:

- i. The amount of each material produced in each vessel (pound/month);
 - ii. VOM emissions with supporting calculations, e.g., the procedures in Condition 7.1.12 (ton/month and ton/year);
 - iii. Process design information for "consumption" of the organic raw material by the system, as the Permittee assumes that only a fraction of the organic raw material is emitted to the atmosphere as VOM; and
 - iv. The maximum hourly emission rates of VOM, NONVOM and Hydrogen Fluoride (HF) for each product or categories of products, based on design calculations for each cell system with supporting information.
- b. HAP emissions from each process unit (lb/year)
- c. Records addressing use of good operating practices for the condensers, dust collectors, and scrubbers identified as control in Condition 7.1.2.
- i. Records for periodic inspection of the dust collectors and scrubbers identified as control equipment in Condition 7.1.2, including the date and the nature of the inspection;
 - ii. Records for prompt repair of defects, with identification and description of the defect, the effect on emissions, date identified and date of repair, and the nature of the repair; and
 - iii. Records of manufacturer's specifications for the scrubber.
- d. Records of any new ancillary pieces of equipment used with the affected chemical manufacturing process units listed in Condition 7.1.2.
- e. Records of any emission tests performed.
- f. The Permittee shall keep records required by the three NESHAP rules cited in Condition 7.1.3(d), as follows:

- i. 40 CFR 63.1259 for the 2317 and 301 reactor systems subject to Subpart GGG, Pharmaceutical Production.
- ii. 40 CFR 63.1367 for the 310, 311, 313 and 343 reactor system subject to Subpart MMM, Pesticide Active Ingredient Production, as of the effective date of the rule, December 23, 2003.
- iii. 40 CFR 63.1416 for reactor system 307 subject to Subpart OOO, Manufacture of Animal Phenolic Resins.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected chemical manufacturing process unit with the permit requirements as follows, pursuant to Section 39.5(7)(f)(iii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Emissions of VOM in excess of the limits in Conditions 7.1.3(c) and/or 7.1.6 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.
- b. The Permittee shall comply with the reporting requirements of the three NESHAP rules cited in Condition 7.1.3(d), as follows:
 - i. 40 CFR 63.1260 for the 2317 and 301 reactor systems, subject to Subpart GGG.
 - ii. 40 CFR 63.1368 for the 310, 311, 313 and 343 reactor systems, subject to Subpart MMM. Although the rule is not effective until December 23, 2003 some notification may have to be done prior to that date.
 - iii. 40 CFR 63.1417 for reactor system 307 subject to Subpart OOO.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to the affected

chemical manufacturing process units without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

Usage of any combination of batches or raw materials or intermediates, or any combination of listed basic production units with various pieces of ancillary equipment without exceeding the emission limits of this permit and without violating any other requirements of this permit.

7.1.12 Compliance Procedures

- a. Compliance with the PM emission limitations in Condition 7.1.3(b) is assured and achieved by the proper operation, maintenance, and work-practices inherent in operation of the affected chemical manufacturing process units. PM emissions shall be determined by the recordkeeping requirements in Condition 7.1.9 and an emission factor of 0.1% of all dry materials used.
- b. Compliance with the VOM and other NONVOM emission limitations shall be determined by the recordkeeping requirements in Condition 7.1.9 and the following procedure:

Emission Master™ is a software tool designed to assist in estimating emissions from batch operations. Each batch product is scrutinized and broken into individual processing steps. Each step including downstream equipment is entered into the software. The software calculations, along with other information, including in some cases process knowledge and laboratory samples, is used to create a mass balance, from which an estimated emission factor is derived. This can then be used with production records through the REAP database to estimate total VOM, NONVOM, CO and HAP for the previous month, and summed on a 12-month rolling average basis. For continuous processes, laboratory data, pilot plant data, plant data, process knowledge, and EPA Method 320 (FTIR) are used to develop mass balances, and emission factors are calculated from those mass balances.

7.2 Storage Tanks

7.2.1 Description

The Permittee operates a number of storage tanks to store materials used or produced in the chemical manufacturing processes at this source. The tanks generally have low emissions but in many cases the material is a HAP and the criteria for classification as an insignificant unit is much lower for HAPs.

Most of the tanks are fixed roof aboveground tanks but there are some pressure tanks and some underground tanks.

7.2.2 List of Emission Equipment and Pollution Control Equipment^a

Equipment	Description	Emission Control Equipment
Storage Tanks	Chemical or Gasoline Storage Tanks	None

^a Further details of the tanks are provided in Attachment 2.

7.2.3 Applicability Provisions

- a. An "affected storage tank," for the purpose of these unit-specific conditions, is a storage tank that has a capacity of less than or equal to 40,000 gallons, as identified in Condition 7.2.2.
- b. Each affected storage tank is subject to 35 IAC 215.301, which specifies that no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 215.302 and the following exception: if no odor nuisance exists this limitation shall apply only to photochemically reactive material pursuant to the definition in 35 IAC 211.4690 [35 IAC 215.301].
- c. Each affected storage tank is subject to the requirements of 35 IAC 215.122(b) because each affected storage tank has a storage capacity greater than 946 liters (250 gallons). If no odor nuisance exists this regulation shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3 °K (70 °F).

- d. The affected storage tank is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for the Miscellaneous Organic Chemical Production and Processes (MON), 40 CFR Part 63, Subparts FFF.

7.2.4 Non-Applicable Regulations

- a. Each affected storage tank is not subject to 35 IAC 215 Subpart B: Organic Emissions from Storage and Loading Operations (except 35 IAC 215.122(b)), because each tank has a capacity of less than 40,000 gallons.
- b. This permit is issued based on the affected tanks not being subject to the New Source Performance Standards (NSPS) for storage tanks, 40 CFR 60 Subpart K, Ka or Kb because:
 - i. The tank was constructed prior to 1973.
 - ii. If constructed after June 11, 1973 but prior to July 23, 1984 and containing a petroleum liquid, the capacity is less than 40,000 gallons.
 - iii. If constructed after July 23, 1984 the vapor pressure of the stored volatile organic liquid is less than 4.0 psia.

7.2.5 Operational And Production Limits And Work Practices

- a. Pursuant to 40 CFR 60, Subpart Kb the Permittee shall not store any organic material with a maximum true vapor pressure of 27.6 kPa (4.0 psia) or greater in each affected storage tank with storage capacity greater than or equal to 75 m³ (19,813 gallons) that is constructed, reconstructed, or modified after July 23, 1984. Storage of such material in these affected storage tanks requires the use of additional emissions control.
- b. Each affected tank shall be equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 IAC 201, and further processed consistent with 35 IAC 218.108, or unless such tank is fitted with a recovery system as described in 35 IAC 218.121. If no odor nuisance exists the limitations of this condition shall only apply to the

loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3 °K (70 °F) [35 IAC 218.122(b) and (c)].

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected storage tanks are subject to the following:

- a. Emissions from the affected storage tanks shall not exceed the following limits:

<u>Emission Source</u>	<u>VOM Emissions</u>	
	<u>(Lb/Month)</u>	<u>(Ton/Year)</u>
Tanks and Tank Loading	2,500	14.5

These limits are based on the maximum total throughput for each tank group, molecular weight and vapor pressures of materials stored, and standard emission factors for storage tanks.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

The above limitations contain revisions to previously issued Permit 72100431. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of this aforementioned permit, consistent with the information provided in the CAAPP application. The source has requested these revisions and has addressed the applicability and compliance of Title I of the CAA, specifically 35 IAC Part 203, Major Stationary Sources Construction and Modification and/or 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits continue to ensure that the construction and/or modification addressed in this permit does not constitute a new major source or major modification pursuant to these rules. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit and the information in the CAAPP application contains the most current and accurate information for the source. Specifically, the numerous emission limits on groups

of tanks were combined into a single emission limit for all storage tanks. Together with Condition 7.1.6, the overall emission limits represent an increase in allowable VOM emissions of 6,892 pounds per year [T1R].

7.2.7 Testing Requirements

None

7.2.8 Inspection Requirements

None

7.2.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for each affected storage tank to demonstrate compliance with Conditions 5.5.1, 7.2.3, and 7.2.7 pursuant to Section 39.5(7)(b) of the Act:

- a. The identification and properties of each organic liquid stored at the source, as related to emissions, i.e., vapor pressure and molecular weight;
- b. The vapor weight percent of each HAP in the organic material emissions for each liquid determined as the average over the annual range of storage temperature and representative data on the composition of the liquid, with identification of supporting documentation, e.g., USEPA 1992 survey; and
- c. The Permittee shall maintain records of the following items on a monthly basis for the previous month:
 - i. The throughput of each organic liquid through each tank or group of tanks;
 - ii. The VOM emissions attributable to each organic liquid stored at the source, tons/month, with supporting calculations, calculated utilizing an approved USEPA methodology, such as the current version of the TANKS program or the method outlined in AP-42, 5th Edition, Volume I, Supplement D, September 1997;
 - iii. For each HAP identified as present, the total emissions of the individual HAP for each

affected storage tank at the source, in
tons/month, with supporting calculations; and

- iv. Total emissions of each individual HAP, and
combined HAPs from the source, in tons/month,
with supporting calculations.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA,
Compliance Section of deviations with the operating
requirements as follows pursuant to Section 39.5(7)(f)(ii)
of the Act:

- a. Any storage of organic liquid with a true vapor
pressure greater than 27.6 kPa (4.0 psia) in an
affected storage tank with storage capacity greater
than or equal to 75 m³ (19,813 gallons) that was
constructed after July 23, 1984, within five days of
becoming aware of the non-compliance status. This
notification shall include a description of the
event, the cause for the non-compliance, actions
taken to correct the non-compliance, and the steps
taken to avoid future non-compliance.
- b. Any loading of organic liquid with a true vapor
pressure greater than or equal to 17.24 kPa (2.5
psia) in an affected storage tank without usage of a
permanent submerged loading pipe or an equivalent
device approved by the Illinois EPA. This
notification shall include a description of the
event, the cause for the non-compliance, actions
taken to correct the non-compliance, and the steps
taken to avoid future non-compliance.
- c. VOM emissions exceeding the allowable of Condition
7.2.6.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical
or operational change with respect to an affected storage
tank without prior notification to the Illinois EPA or
revision of this permit. This condition does not affect
the Permittee's obligation to properly obtain a
construction permit in a timely manner for any activity
constituting construction or modification of the source,
as defined in 35 IAC 201.102:

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Changes in the material stored in a tank, provided the tank continues to comply with the Conditions in Section 7.2 of this permit.

7.2.12 Compliance Procedures

- a. Compliance with the requirements in Condition 7.2.5 shall be determined by the recordkeeping and reporting requirements in Condition 7.2.9 and Condition 7.2.10.
- b. Emissions from each affected storage tank shall be determined through the use of the current version of the USEPA TANKS program or the method outlined in AP-42, 5th Edition, Volume I, Supplement D, September 1997.

7.3 Unit: Fuel Combustion Units
 Control: None

7.3.1 Description

Natural gas fired boilers with #6 fuel oil as standby fuels are used for production of process steam.

7.3.2 List of Emission Units and Pollution Control Equipment

Equipment	Design Heat Input Capacity	Emission Control Equipment
Boiler #1	50 mmBtu/hr	None
Boiler #2	50 mmBtu/hr	None
Boiler #3	75 mmBtu/hr	None
Reactor Burner	3.8 mmBtu/hr	None

7.3.3 Applicable Provisions and Regulations

- a. The "affected boiler" for the purpose of these unit-specific conditions, is each piece of equipment listed in condition 7.3.2.
- b. The emissions of particulate matter (PM) into the atmosphere in any one-hour period shall not exceed 0.15 kg/MW-hr (0.10 lb/mmBtu) of actual heat input from any fuel combustion emission unit using liquid fuel exclusively [35 IAC 212.206].
- c. The emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission unit with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air [35 IAC 216.121].
- d. The emission of sulfur dioxide (SO₂) into the atmosphere in any one hour period from any affected boiler burning liquid fuel exclusively shall not exceed 1.55 kg of sulfur dioxide per MW-hr of actual heat input when residual fuel oil is burned (1.0 lb/mmBtu) [35 IAC 214.122(b) (1)].

7.3.4 Non-Applicability of Regulations of Concern

- a. The affected boiler is not subject to 35 IAC 217.141, because the actual heat input of the affected boiler is less than 73.2 MW (250 mmBtu/hr).

- b. Pursuant to 35 IAC 215.303, the affected boiler, i.e., fuel combustion emission unit, is not subject to 35 IAC 218.301, Use of Organic Material.
- c. There are no applicable requirements for particulate matter or sulfur dioxide for the affected boiler while firing natural gas.
- d. The New Source Performance Standard for Small - Industrial - Commercial - Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, applies to units constructed, reconstructed, or modified after June 9, 1989. The affected boilers were all constructed prior to and not modified after June 9, 1989, therefore, these rules do not apply.

7.3.5 Operational and Production Limits and Work Practices

At the above location, the Permittee shall not utilize a residual fuel oil (Grades No. 4, 5 and 6) with a sulfur content greater than that given by the formula:

$$\text{Maximum wt. percent sulfur} = (0.00005) \times (\text{Gross heating value of the oil in Btu/lb})$$

This requirement assures compliance with Condition 7.3.3(d).

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected boiler #3 is subject to the following:

Emissions from the boiler #3 shall not exceed the following:

<u>Pollutant</u>	<u>Emissions (Tons/Year)</u>
PM	3.3
NO _x	39.5
CO	8.9
SO ₂	36.6
OM	0.6

These limits are based on standard emission factors, and firing of as much as 375,000,000 SCF of natural gas as the primary fuel and 500,000 gallons of #6 oil as standby fuel (T1).

The above limitations were established in Construction Permit #85020063, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.3.7 Testing Requirements

None

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected boiler to demonstrate compliance with Conditions 5.5.1, 7.3.3, and 7.3.6, pursuant to Section 39.5(7)(b) of the Act:

- a. Total natural gas usage for each affected boiler (mmscf/month and mmscf/year).
- b. Total residual fuel usage for each affected boiler (gal/month and gal/year).
- c. The maximum sulfur content (in wt %) and the gross heating value of oil (mmBtu/lb) for each shipment of residual fuel oil used in the affected boilers.
- d. Monthly and annual aggregate NO_x, PM, SO₂, CO and OM emissions, based on natural gas consumption and residual oil consumption for each boiler and the applicable emission factors from Condition 7.1.12(d) with supporting calculations.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with applicable control and operating requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

- a. Notification within 60 days of operation of an affected boiler that was not in compliance with the opacity limitations in Condition 5.5.2(b) based on a Method 9 test, with a copy of such record for each incident.
- b. If there is an exceedance of sulfur content of #6 oil in excess of the limit specified in Condition 7.3.3, the Permittee shall submit a report within 30 days after receipt of a noncompliant shipment of distillate fuel oil.
- c. Emissions of NO_x, PM, SO₂, or VOM from the affected boilers in excess of the limits specified in Condition 5.5.1 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

- a. Compliance with Conditions 7.3.3(b) and (c) are assumed to be achieved by the work practices inherent in operation of an affected boiler, thus no compliance procedures are set in this permit addressing this regulation.
- b. Compliance with Condition 7.3.3(d), shall be based on use of a fuel oil that meets the requirements of Condition 7.3.5, the recordkeeping requirements in Condition 7.3.9 and the emission factor in Condition 7.3.12(c)(ii).
- c. Compliance with the emission limits in Conditions 5.5.1 and 7.3.6 shall be based on the recordkeeping requirements in Condition 7.3.9 and the emission factors and formulas listed below:

- i. Emissions from the boilers burning natural gas shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factor (lb/10⁶ ft³)</u>
PM	7.6
SO ₂	0.6
VOM	5.5
NO _x	100
CO	84

These are the emission factors for uncontrolled natural gas combustion in small boilers (<100 mmBtu/hr), Tables 1.4-1 and 1.4-2, AP-42, Volume I, Fifth Edition, March 1998.

Boiler Emissions (ton) = natural gas consumed multiplied by the appropriate emission factor/2000.

- ii. Emissions from the affected boilers burning #6 oil shall be calculated based on the following emission factors:

<u>Pollutant</u>	<u>Emission Factors (lb/10³ gallon)</u>
PM	10
NO _x	55
SO ₂	157S
VOM	1.5
CO	5

These are the emission factors for uncontrolled #6 oil combustion in commercial/institutional/residential combustors, Tables 1.3-1, 1.3-3 and 1.3-7, AP-42, Volume I, Fifth Edition, September 1998. "S" indicates that the weight % of sulfur in the oil should be multiplied by the value given.

Boiler Emissions (ton) = #6 oil consumed (gallons) multiplied by the appropriate emission factor/2000.

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Total emissions for each pollutant are to be determined by combining the results of Conditions 7.3.12(i) and (ii) for all affected boilers.

- d. For purposes of compliance with the opacity limitations of Condition 5.2.2, the Permittee shall conduct qualitative visible emissions observation once each day (during daylight hours) when the affected boiler is in operation and using a fuel other than natural gas, to observe for the presence of abnormal visible emissions. If abnormal visible emissions are observed, the Permittee shall initiate corrective actions to eliminate the abnormal visible emissions. If the Permittee cannot eliminate the abnormal visible emissions within 24 hours, the Permittee shall conduct a Method 9 test within three days after the qualitative observation showing abnormal emissions. If the Method 9 test shows that the unit is not in compliance with Condition 5.5.2(b), this shall be reported as per Condition 7.3.10(a).

7.4 Unit: Loading Operations
 Control: None

7.4.1 Description

Loading of products into shipping containers is conducted in various locations throughout the plant. Material can be loaded directly from process units or from bulk storage. Several loading racks are located throughout the plant to fill trucks.

7.4.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
Loading Operations	Various Units: 10 Loading Racks, 6 Fixed Roof Storage Tanks, Loading Directly From Process Vessels	None

7.4.3 Applicability Provisions and Applicable Regulations

- a. The "affected loading operations" for the purpose of these unit-specific conditions, are all product loading operations as described in Condition 7.4.2
- b. The affected loading operations are subject to 35 IAC 215 Subpart B, Organic Emissions from Storage and Loading Operations, which provides that:

The Permittee shall not cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading area having throughput of greater than 151 cubic meters per day (40,000 gal/day) into any railroad tank car, tank truck or trailer unless such loading area is equipped with submerged loading pipes or a device that is equally effective in controlling emissions and is approved by the Illinois EPA according to 35 IAC 201, and further processed consistent with 35 IAC 215.108. If no odor nuisance exists, this limit shall only apply to the loading of volatile organic liquid with a vapor pressure of 2.5 psia or greater [35 IAC 215.122(a) and (c)].

- c. Each affected loading operation is subject to 35 IAC 215.301, which specifies that no person shall cause

or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 IAC 218.302 and the following exception: if no odor nuisance exists this limitation shall apply only to photochemically reactive material as defined in 35 IAC 211.4690 [35 IAC 215.301].

7.4.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected loading operations not being subject to the New Source Performance Standards (NSPS) for the Synthetic Organic Chemical Manufacturing Industry, 40 CFR Part 60, Subparts VV (equipment leaks), because the affected loading operations are not associated with equipment that produces any of the affected chemicals listed in this regulation.
- b. This permit is issued based on the affected loading operations not being subject to the New Source Performance Standards (NSPS) for the Polymer Manufacturing Industry, 40 CFR Part 60, Subpart DDD, because the affected loading operations are not associated with equipment that produces any of the affected polymers listed in this regulation.
- c. This permit is issued based on the affected loading operations not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for the Synthetic Organic Chemical Manufacturing Industry, 40 CFR Part 63, Subparts F through H, because the affected loading operations are not associated with equipment which produces any of the affected chemicals listed in these regulations.
- d. This permit is issued based on the affected loading operations not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Polymers and Resins, 40 CFR Part 63, Subparts U and JJJ, because the affected loading operations are not associated with equipment which produces any of the affected polymers listed in these regulations.
- e. This permit is issued based on the affected chemical manufacturing processes not being subject to 35 IAC 215 Subpart Q, Leaks from SOCM equipment, because the chemical processes do not manufacture any of the chemicals listed in Appendix D of Part 215.

7.4.5 Operational And Production Limits And Work Practices

Each affected loading operation which loads a volatile organic liquid with a vapor pressure of 2.5 psia or greater shall be equipped with a submerged loading pipe, unless the organic material emissions from such loading operation are less than 3.6 kilograms per hour (8 pounds per hour) or the loading area has a throughput of less than 151 cubic meters per day (40,000 gallons per day).

7.4.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.4.7 Testing Requirements

None

7.4.8 Inspection Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected loading operations to demonstrate compliance with Condition 5.5.1 and 7.4.5, pursuant to Section 39.5(7)(b) of the Act:

- a. Records of the daily throughput of each organic material through the affected loading operations in aggregate and vapor pressure of the material loaded (gallons), if vapor pressure is over 2.5 psi;
- b. Records indicating the maximum VOM emissions per hour using maximum operating rates for each affected loading operation which loads a photochemically reactive material, with supporting calculations; and
- c. The actual VOM emissions from the affected loading operations (tons/year), with supporting calculations.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of an affected loading operation with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Operation without a submerged loading pipe as required by Condition 7.4.5, unless one of the exceptions in Condition 7.4.5 applies, within 30 days of such an occurrence.
- b. Emissions of VOM in excess of the limits specified in Condition 5.5.1 based on the current annual records within 30 days of such an occurrence.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

- a. Compliance with the operating requirements in Condition 7.4.5 shall be determined by the recordkeeping and reporting requirements in Conditions 7.4.9 and 7.4.10.
- b. Compliance with the VOM emission limitations in Conditions 5.5.1 and 7.4.3 shall be determined by the recordkeeping requirements in Condition 7.4.9 and the following emission factors:

<u>Product Made</u>	<u>Vessel</u>	<u>VOM Emission Factor (Lb/Batch)</u>
Latex Polymer	164/205	0.17
Solution Polymer	300/322/325	0.65
Pilot Plant	ANY	1.60
PR-475	155	0.21
7607	195	0.10

7.5 Unit: Waste Water Treatment System
 Control: None

7.5.1 Description

The chemical manufacturing facilities of the 3M Cordova Specialty Materials Division generate wastewater containing organic pollutants. These pollutants are removed from the wastewater by means of a wastewater treatment system before the wastewater is discharged.

Wastewater produced by the 3M Cordova manufacturing facility originates from several different sources. Each wastewater stream has its own particular characteristics and is treated accordingly. In general, wastewater streams from the organic chemical manufacturing operations are treated in the organic (biological) wastewater treatment system. This is the primary source of VOM emissions in the wastewater treatment system. Wastewater from the fluorochemical operations, are treated in a physical chemical treatment process that is designed to remove inorganic fluoride before being discharged to the organic treatment system. All wastewaters are combined and treated in two polishing ponds. Flow from the final polishing pond is blended with the plant's non-contact process water before final discharge.

The sources of VOM emissions from the organic (biological) wastewater treatment system are:

Two Primary Settling Tanks
 Equalization Tank #1
 Equalization Tank #2
 Aeration Tank
 Two Final Settling Tanks Following the Aeration Tank

7.5.2 List of Emission Equipment and Pollution Control Equipment

Description	Control Equipment
Waste Water Treatment System	None

7.5.3 Applicable Provisions

- a. An "affected Waste water treatment system" for the purpose of these unit specific conditions is a process emission source described in conditions 7.6.1 and 7.6.2.

- b. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from an affected process emission source, except as provided in Sections 215.302, 215.303, 215.304 of this Part and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material as defined in 35 IAC 211.4690 [35 IAC 215.301].

7.5.4 Non-Applicable Regulations

This permit is issued based on the source not being subject to 35 IAC 215.141 because the affected Waste water treatment system is not an effluent water separator.

7.5.5 Operational and Production Limits and Work Practices

N/A

7.5.6 Emission Limitations

In addition to the source-wide emission limitations in Condition 5.5, the affected waste water treatment system is subject to the following:

N/A

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirements

N/A

7.5.9 Recordkeeping Requirements

The Permittee shall maintain monthly records of the following items for the affected waste water treatment system to demonstrate compliance with Conditions 5.4 and 5.5 pursuant to Section 39.5(7)(b) of the Act:

- a. The Permittee shall maintain a logbook for the operation of the affected wastewater treatment system that includes the following information pursuant to Section 39.5(7)(b) of the Act:

- i. Operating rate of the wastewater treatment system, in gallons of influent water per hour, on at least a weekly basis.
- ii. Annual emissions of HAP and VOM, in tons, with supporting calculations.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with an emission limit as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

N/A

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

Emissions shall be calculated using the WATER9 program or any updates issued by the USEPA.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after _____ **{insert public notice start date}** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12) (a) (i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these

conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and
- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
 - i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276
 - ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614
 - iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506
 - iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604
- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title

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I provisions until the Illinois EPA deletes or revises them in
accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

- 9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].
- 9.1.2 In particular, this permit does not alter or affect the following:
- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
 - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
 - d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.
- 9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor any substances or parameters specified in the permit, at any emission point of discharge to the environment:
 - i. At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7) (o) (iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12) (b) (iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at

least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].

- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of

the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;
 - ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements, including newly issued construction permits, become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and

- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(1), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 Emissions of Particulate Matter from 3 Process Emission Units

10.1.1 Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972 (New Process Emission Units)

- a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

Where:

P = Process weight rate; and
 E = Allowable emission rate; and,

- i. Up to process weight rates of 408 Mg/hr (450 ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	Lb/hr
A	1.214	2.54
B	0.534	0.534

- ii. For process weight rate greater than or equal to 408 Mg/hr (450 ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	Lb/hr
A	11.42	24.8
B	0.16	0.16

- c. Limits for Process Emission Units For Which
 Construction or Modification Commenced On or After
 April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	ton/hr	lb/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.2	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00
454.0	30.4	500.00	67.00

Where:

P = Process weight rate in Mg/hr or T/hr; and
 E = Allowable emission rate in Kg/hr or lbs/hr

10.1.2 Process Emission Units for Which Construction or
 Modification Commenced Prior to April 14, 1972 (Existing
 Process Emission Units)

- a. No person shall cause or allow the emission of
 particulate matter into the atmosphere in any one

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hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

- b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

Where:

P = Process weight rate; and,
 E = Allowable emission rate; and,

- i. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67

- ii. For process weight rates in excess of 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lb/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

- c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

	Metric	English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lbs/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87

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P Mg/hr	Metric E kg/hr	English	
		P T/hr	E lbs/hr
0.2	0.68	0.20	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.	8.7	10.00	19.20
13.	11.1	15.00	25.20
18.	13.8	20.00	30.50
23.	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

Where:

P = Process weight rate in Mg/hr or T/hr; and
 E = Allowable emission rate in Kg/hr or lbs/hr

10.2 Attachment 2 - Details of Storage Tanks^a

<u>Tank No.</u>	<u>Capacity (M-Gal)</u>	<u>Vapor Pressure^b</u>	<u>HAP Material</u>	<u>Type</u>	<u>Shape</u>	<u>Submerged Fill Pipe</u>	<u>Year Built</u>
1-1-A-1-T	42.7	A	No	Fixed Roof	Vertical	Yes	1969
1-1-A-3-T	45.5	A	Yes	Fixed Roof	Vertical	Yes	1969
1-1-A-5-T	45.5	A	Yes	Fixed Roof	Vertical	Yes	1669
1-1-A-7-T	42.7	B	Yes	Fixed Roof	Vertical	Yes	1969
1-1-A-9-T	42.7	A	Yes	Fixed Roof	Vertical	Yes	1969
1-1-A-11-T	42.7	B	No	Fixed Roof	Vertical	Yes	1969
1-1-A-13-T	42.7	B	Yes	Fixed Roof	Vertical	Yes	1969
1-1-A-15-T	42.7	A	No	Fixed Roof	Vertical	Yes	1969
1-1-A-17-T	42.7	Not a VOM	No	Fixed Roof	Vertical	Yes	1969
1-1-A-19-T	42.7		No	Fixed Roof	Vertical	Yes	1969
1-1-A-21-T	42.7	A	Yes	Fixed Roof	Vertical	Yes	1969
1-1-A-26-T	42.7	A	Yes	Fixed Roof	Vertical	Yes	1973
1-1-A-28-T	42.7	B	Yes	Fixed Roof	Vertical	Yes	1973
1-1-A-29-T	65.4	B	Yes	Fixed Roof	Vertical	Yes	1973
1-1-A-30-T	42.7	A	Yes	Fixed Roof	Vertical	Yes	1973
1-1-A-39-T	152.4	A	Yes	Fixed Roof	Vertical	Yes	1975
1-2-A-1-T	30.0	A	No	Pressure	Horizontal	No	1969
1-3-A-1-T	20.0	A	No	Pressure	Horizontal	No	1997
1-3-A-2-T	17.3	B	Yes	Fixed Roof	Vertical	No	1997
1-3-A-3-T	20.0	A	No	Fixed Roof	Vertical	No	1997
1-3-A-5-T	20.0	A	No	Fixed Roof	Vertical	No	1997
1-3-A-6-T	20.0	B	Yes	Fixed Roof	Vertical	No	1997
1-3-A-8-T	20.0	B	Yes	Fixed Roof	Vertical	No	1997
1-3-A-9-T	20.0	B	Yes	Fixed Roof	Vertical	No	1997
1-3-A-11-T	20.0	B	Yes	Fixed Roof	Vertical	No	1997
1-3-A-13-T	20.0	B	Yes	Fixed Roof	Vertical	No	1997
1-3-A-14-T	30.0	B	Yes	Fixed Roof	Vertical	No	1997
1-3-A-15-T	20.0	B	Yes	Fixed Roof	Vertical	No	1997

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<u>Tank No.</u>	<u>Capacity (M-Gal)</u>	<u>Vapor Pressure^b</u>	<u>HAP Material</u>	<u>Type</u>	<u>Shape</u>	<u>Submerged Fill Pipe</u>	<u>Year Built</u>
1-3-A-16-T	20.0	B	Yes	Fixed Roof	Vertical	No	1997
23-4-A-1-T	20.0	A	Yes	Fixed Roof	Vertical	No	1995
23-98-A-1-T	30.0	B	Yes	Underground	Horizontal	Yes	1985
23-98-A-2-T	30.0	A	Yes	Underground	Horizontal	Yes	1985
23-98-A-3-T	30.0	B	Yes	Underground	Horizontal	Yes	1985
23-98-A-4-T	30.0	B	Yes	Underground	Horizontal	Yes	1985
23-98-A-5-T	30.0	B	Yes	Underground	Horizontal	Yes	1985
23-98-A-6-T	30.0	B	Yes	Underground	Horizontal	Yes	1985
23-98-A-7-T	30.0	A	Yes	Underground	Horizontal	Yes	1985

^a All tanks have conservation vents

A = <0.5 psia, B = 0.5 - 2.5 psia

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10.3 Attachment 3 - Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.4 Attachment 4 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;
2. Minor Permit Modification; and
3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment
 - Corrects typographical errors;
 - Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - Requires more frequent monitoring or reporting by the Permittee;
 - Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the Illinois EPA;
 - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or
 - Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.

2. Minor Permit Modification

- Do not violate any applicable requirement;
- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
 - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.
- Are not modifications under any provision of Title I of the CAA; and
- Are not required to be processed as a significant permit modification.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and

- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;
- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms>.

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Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.



Illinois Environmental Protection Agency
Division Of Air Pollution Control -- Permit Section
P.O. Box 19506
Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	For Illinois EPA use only
	I.D. number:
	Permit number:
	Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:	4. Zip code:	
5. Is the source located within city limits? <input type="checkbox"/> Yes <input type="checkbox"/> No		
6. Township name:	7. County:	8. I.D. number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? <input type="checkbox"/> Owner <input type="checkbox"/> Operator	20. All correspondence to: (check one) <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents	
24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?
	<input type="checkbox"/> Yes <input type="checkbox"/> No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.
	<input type="checkbox"/> Yes <input type="checkbox"/> No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?
	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block	
This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30.	I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature:
BY:	

	AUTHORIZED SIGNATURE

	TYPED OR PRINTED NAME OF SIGNATORY

	TITLE OF SIGNATORY
	_____ / _____ / _____
	DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

10.6 Attachment 6 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
2. A completed compliance certification for the source. For this purpose, the Illinois EPA will accept a copy of the most recent form 401-CAAPP, ANNUAL COMPLIANCE CERTIFICATION submitted to the Illinois EPA.
3. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.
4. Information addressing any outstanding transfer agreement pursuant to the ERMS.
5.
 - a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.
 - b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.

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The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms.html>.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

DGP:psj

I. INTRODUCTION

This source has applied for a Clean Air Act Permit Program (CAAPP) operating permit for its existing operation. The CAAPP is the program established in Illinois for the operating permits for significant stationary sources required by the federal Clean Air Act, as amended in 1990. The conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

The 3M Cordova Specialty Materials Manufacturing Division (3M) manufacturing facility produces numerous chemical products. These products are adhesives, resins, fluorochemicals, and other specialty chemicals. Some products are only made once or twice per year in small quantities while others are produced almost year around in large quantities. Production is by batch operations and semi-continuous operations. Almost no equipment is dedicated to making a specific product. Most every production unit is called upon to make a wide variety of products. A basic production unit, referred to as a burden center, consists of a key piece of equipment such as a chemical reactor and various ancillary parts. These ancillary pieces of equipment are stationary but may be reconfigured in a variety of ways, i.e. using flexible hoses, and used as part of another burden center. Ancillary pieces of equipment may include one or more of the following types of equipment: an overhead condenser, receiver, weigh tank, or a vacuum system.

II. EMISSION UNITS

Significant emission units at this source are as follows:

Emission Unit	Description	Date Constructed	Emission Control Equipment
Building 2			
Small Packaging	Tanks and Columns for Purification	May, 2002	None
2-4 System BC-4T	TDX Pouch Process	July, 1997	None
Building 3			
3-1 System BC-3A	3-1-A-1 Reactor	February, 1970	None
3-1 System BC-2A	3-1-A-4 Receiver	November, 1969	None
3-2 System BC-3B	3-2-A-1 Reactor	December, 1970	None
3-2 System BC-2B	3-2-A-2 Reactor	December, 1970	None
3-3 System BC-3C	3-3-A-1 Reactor	June, 1973	None
3-4 System BC-3D	3-4-A-1 Reactor	September, 1969	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
3-4 System	3-4-A-2 Receiver	September, 1969	None
3-5 System BC-3E	3-5-A-3 Reactor	October, 1973	None
3-5 System BC-3E	3-5-E-1 Conical Dryer	July, 1970	None
3-6 System BC-3F	3-6-A-1 Reactor	January, 1993	None
3-6 System BC-2F	3-6-A-2 Receiver	January, 1970	None
3-7 System BC-3G	3-7-A-1 Reactor	January, 1985	None
3-7 System BC-2G	3-7-A-2 Reactor	January, 1985	None
3-8 System BC-3H	3-8-A-1 Reactor	August, 1974	None
3-9 System BC-3J	3-9-A-1 Reactor	October, 1974	None
3-9 System BC-2J	3-9-A-2 Reactor	September, 1974	None
3-10 System BC-3K	3-10-A-1 Reactor	December, 1974	None
3-11 System BC-3L	3-11-A-1 Reactor	January, 1985	None
3-11 System BC-2L	3-11-A-2 Receiver	December, 1973	None
3-12 System BC-3M	3-12-A-1 Reactor	April, 1977	None
3-12 System BC-2M	3-12-A-2 Receiver	December, 1973	None
3-13 System BC-3N	3-13-A-1 Reactor	April, 1975	None
3-13 System BC-2N	3-13-A-2 Reactor	May, 1975	None
3-14 System BC-3P	3-14-A-1 Reactor	August, 1987	None
3-14 System BC-2P	3-14-A-2 Reactor	December, 1987	None
3-21 System BC-4S and 1R	3-21-A-2 Pony Tub 3-21-A-2 Cowles Tank 3-21-E-1 Roll Mill 3-21-E-2 No. Pony Mixer 3-21-E-3 So. Pony Mixer 3-21-E-8 Homo Mixer 3-21-E-9 Mixer 3-21-E-12 Drum Tumbler	June, 1970 Except: E-8 = N/A E-12 = May, 1992	Dust Collectors Associated with Some Units Labeled Insignificant Under Section 3.1
3-22 System BC-4T, 7T and 7S	3-22-E-9 Marion Mixer 3-22E-18 Grinder	E-9 = December, 1979 E-18 - N/A	Dust Collectors 3-22-E-10 3-22-E-14 3-22-E-15

Emission Unit	Description	Date Constructed	Emission Control Equipment
3-25 System BC-75	3-25-E-1 Double Drum Dryer	April, 1970	None
3-26 System BC-43	3-26-E-1 Double Drum Dryer	March, 1974	None
3-27 System BC-50	3-27-E-1 Double Drum Dryer	April, 1987	None
3-25, 3-26, 3-27 System	Common Disperser Tanks 3-25-A-3, 3-25-A-4 3-26-A-3, 3-26-A-4 3-27-A-3, 3-27-A-4	25-A-3 and 4 = April, 1970 26-A-3 and 4 = March, 1974 27-A-3 and 4 = April, 1987	None
3-32 System BC-6B	3-32-A-1 Reactor	June, 1989	None
3-32 System BC-5B	3-32-A-2 Receiver	October, 1977	None
3-32 System BC-4B	3-32-E-4 Flaker	October, 1972	Dust Collector 3-32-E-9
3-32 System BC-6B	3-32-E-7 Flaker	August, 1999	Dust Collector 3-32-E-7
3-34 System BC-1D	3-34-E-1 Dryer	N/A	None
3-40 System BC-6K	3-40-A-1 Reactor	January, 1989	None
3-40 System BC-5K	3-40-A-2 Receiver	April, 1970	None
3-43-C-1 System BC-5N	Eimco Filter	N/A	None
3-57 System BC-3M	3-57-A-1 Thru 4 Tanks	1997	None
3-62 System BC-4G	3-62-C-1 S Press	December 1987	None
3-66 System BC-4F	3-66-A-1 Reactor	April, 1970	None
3-68 System BC-6H	3-68-A-1 Reactor	April, 1974	None
Building 4			
4-1 System BC-41	4-1-A-1 Reactor	September, 1970	None
4-1 System BC-42	4-1-A-2 Receiver	September, 1970	None
4-2 System BC-52	4-2-A-1 Reactor	September, 1970	Scrubber (NH ₃)
4-32 System BC-53	4-32-A-1 Reactor	September, 1970	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Building 20 ^{a, b}			
20-01 System BC-01	Electrochemical Cells 20-1-A-1 Thru 6, 20-1-A-21, 20-1-A-22	November, 1975	Scrubber*
20-02 System BC-02	Electrochemical Cells 20-2-A-1 Thru 12	January, 1997 Except: A-3, 6, and 12 = October, 1998	Scrubber*
20-03 System BC-03	Electrochemical Cells 20-3-A-1 Thru 12	January, 1987 Except: A-3 = August, 2001	Scrubber*
20-04 System BC-04	Electrochemical Cells 20-4-A-1 Thru 3	June, 1992	Scrubber*
20-11 System BC-11	20-11-A-7 Distillation Column	January, 1992	Scrubber*
20-12 System BC-12	20-12-A-1 Distillation Column	January, 1992	Scrubber*
20-21 System BC-21	20-21-A-4 Silica Gel Column	February, 1999	None
20-22 System BC-22	20-22-D-1 Discotherm	January, 1990	Scrubber*
20-33 System BC-33	20-33-A-1, 2, 13 Distillation Columns	A-1 = May, 1995 A-2 = May, 1995 A-13 = July, 1996	Scrubber*
20-34 System BC-34	Dessicant Dryer Columns 20-34-A-1, 20-34-A2	November, 1998	None
20-41 System BC-41	20-41-A-1 Reactor	June, 1996	Scrubber*
20-50 System BC-51	20-50-A-1 Reactor	January, 1981	Scrubber*
20-60 System BC-61	20-60-A-1 Reactor	November, 1982	Scrubber*
20-66 System BC-66	20-66-A-11, 21, 41, 51 Distillation Columns	November, 1998	None
20-70 System BC-70	20-70-A-1 Reactor	January, 1997	Scrubber*
20-71 System BC-71	20-71-A-1 Reactor	January, 1997	Scrubber*
20-72 System BC-72	20-72-A-1 Columns	January, 1997	None
20-73 System BC-73	20-73-A-1 Tanks	March, 1997	Dust Collector 20-73-C-2 Listed as Insignificant in 3.1
20-90 System BC-90	20-90-A-1 and 11 Distillation Columns	February, 2002	None
20-93 System	20-93-A-1 Thru 6 Finishing Columns	June, 1997	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
20-95 System BC-95	20-95-A-1 Wash Columns	February, 1997	None
Building 20 Scrubbers	Building 20 Equipment Can be Served by Various Scrubbers.		20-31-C-2, 20-31-C-5, 20-2-C-5, 20-3-C-3, 20-3-C-10, 20-31-C-3, 20-33-C-7, 20-41-C-1, 20-50-D-9, 20-60-D-5, 20-70-C-1, 20-71-C-1, 20-73-C-1, 20-31-C-1
Building 23			
23-01 System BC-31	23-1-A-1 Reactor	September, 1988	None
23-02 System BC-91	23-2-B-3 Wiped Film Evaporator	April, 1999	None
23-03 System BC-33	23-3-A-1 Reactor	October, 1985	None
23-03 System BC-23	23-3-A-2 Receiver	October, 1985	None
23-04 System BC-89	23-4-C-1 Wiped Film Evaporator	August, 1995	
23-05 System BC-35	23-5-A-1 Reactor	June, 1986	
23-05 System BC-15	23-5-E-3 LUWA Evaporator	August, 1995	None
23-06 System BC-6A	23-6-A-1 Reactor	January, 1996	None
23-07 System BC-36	23-7-A-1 Reactor	April, 1991	None
23-16 System BC-6B	23-16-A-1 Distillation Columns	October, 1995	None
23-17 System BC-34	23-17-A-1 Reactor	July, 1999	None
23-31 System BC-38	23-31-A-1 Reactor	July, 1999	None
23-32 and 34 Systems	Weigh and Hold Tanks 23-32-A-3, 4, 5 23-34-A-3	32-A-3, 4, and 5 = July, 1999 34-A-3 = May, 2000	None
23-35 System BC-39	23-35-A-1 Reactor	February, 2000	None
23-37 System BC-36	23-37-A-1 Reactor	April, 1991	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
23-38 System BC-08	23-38-A-1 Wiped Film Evaporator	June, 1997	None
Building 30 ^{a, b}			
30-01 System BC-05	30-1-A-1 (-12) Twelve Cell System	March, 1998	Scrubbers*
30-02 System BC-06	30-02-A-1 (-12) Twelve Cell System	March, 1998	Scrubbers*
30-06 System BC-80	30-06-A-1 & 11, 13-19 Distillation Column and Silica Columns	August, 1999	None
30-07 System BC-40	30-07-A-1 and 2, 11 and 12 Columns	May, 1998	Scrubber*
30-08 System BC-81	30-08-A-1 Distillation System	November, 1999	Scrubbers*
30-09 System	30-9-A-1, 2 and 3 Tanks	May, 1998	Scrubber* Dust Collector 30-9-C-2 Listed as Insignificant in 3.1
30-20 System	30-20-A-1 Receiver	April, 1998	None
30-14 System	30-14-A-1 Thru 3 Columns	September, 2002	None
30-37 System	Weigh Tank 30-37-A-1	November, 1998	Scrubber*
30-61 System BC-23	30-61-A-3 Discotherm Evaporator	July, 1998	Scrubber*
30-67 System BC-45	30-67-A-1 and 11 Distillation Columns	November, 1998	Scrubber*
Building 30 Scrubbers	Building 30 Equipment Can be Served by Various Scrubbers.		30-1-C-4, 30-1-C-12, 30-2-C-4, 30-2-C-12, 30-09-C-4, 30-08-C-1, 30-61-C-1
Building 68			
Building 68 System	68-1-C-1 Repackaging Unit with Dust Collector	April, 2000	Dust Collector 68-1-C-1
Other			
BIS A	Bisphenol A Storage and Transfer/Silo	November, 1992	Dust Collector 1-1-C-7, 3-98-C-10, 3-98-C-11, 3-98-C-6, 3-98-C-9
Storage Tanks	Chemical or Gasoline Storage Tanks	See Attachment 2	None

Emission Unit	Description	Date Constructed	Emission Control Equipment
Boiler #1	Gas-Fired Boiler with #6 Oil Standby Fuel, Firing Rate: 50 mmBtu/hr	1970	None
Boiler #2	Gas-Fired Boiler with #6 Oil Standby Fuel, Firing Rate: 50 mmBtu/hr	1970	None
Boiler #3	Gas-Fired Boiler with #6 Oil Standby Fuel, Firing Rate: 75 mmBtu/hr	1986	None
Reactor Burner	3.8 mmBtu/hr	1980	None
Loading Operations	Various Units: 10 Loading Racks, 6 Fixed Roof Storage Tanks, Loading Directly From Process Vessels	Pre-1972	None
	Fugitive VOM Emission Source	----	

^a All major vents in Buildings 20 and 30 can discharge to a voluntary thermal oxidizer or scrubbers.

^b Buildings 20 and 30 have revisions to original construction permits issued in 2003 and therefore original construction dates are not relevant.

III. EMISSIONS

This source is required to have a CAAPP permit since it is a major source of emissions.

For purposes of fees, the source is allowed the following emissions:

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	1,017.10
Sulfur Dioxide (SO ₂)	753.07
Particulate Matter (PM)	94.26
Nitrogen Oxides (NO _x)	320.66
HAP, not included in VOM or PM	53.19
Total	2,228.28

This permit is a combined Title I/CAAPP permit that may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified

within the permit by T1, T1R, or T1N. The source has requested that the Illinois EPA establish or revise such conditions in a Title I permit, consistent with the information provided in the CAAPP application. Any conditions established in a construction permit pursuant to Title I and not revised or deleted in this permit, remain in effect pursuant to Title I provisions until such time that the Illinois EPA revises or deletes them.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's emission standards represent the basic requirements for sources in Illinois.

All emission sources in Illinois must comply with the federal New Source Performance Standards (NSPS). The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.

All emission sources in Illinois must comply with the federal National Emission Standards for Hazardous Air Pollutants (NESHAP). The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.

V. PROPOSED PERMIT

CAAPP

A CAAPP permit contains all conditions that apply to a source and a listing of the applicable state and federal air pollution control regulations that are the origin of the conditions. The permit also contains emission limits and appropriate compliance procedures. The appropriate compliance procedures may include inspections, work practices, monitoring, record keeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis.

Title I

A combined Title I/CAAPP permit contains terms and conditions established by the Illinois EPA pursuant to authority found in Title I provisions, e.g., 40 CFR 52.21 - federal Prevention of Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Notwithstanding the expiration date on the first page of the permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that this source's permit application meets the standards for issuance of a CAAPP permit. The Illinois EPA is therefore proposing to issue a CAAPP permit, subject to the conditions proposed in the draft permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.

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